

GMO HEALTH RISKS

- Genetically Modified Foods:
 - YES, You are eating them,
 - NO, They are NOT safe,

Did You Know...?

Since 1996 Americans have been eating genetically modified (GM) ingredients in most processed foods.

- GM plants, such as soybean, corn, cottonseed, and canola, have had foreign genes forced into their DNA. The inserted genes come from species such as bacteria and viruses, which have never been in the human food supply.
- What is a GMO? Genetically modified organisms (GMOs) are made by forcing genes from one species, such as bacteria, viruses, animals, or humans, into the DNA of a food crop or animal to introduce a new trait.

Did You Know...?

- The American Academy of Environmental Medicine states, "Several animal studies indicate serious health risks associated with GM food," including infertility, immune problems, accelerated aging, faulty insulin regulation, and changes in major organs and the gastrointestinal system.
- They ask physicians to advise patients to avoid (DO NOT USE) GM food.

Many physicians advise ALL patients to choose healthier non-GMO foods.

Visit ResponsibleTechnology.org to:

- Learn about GMO health risks
 - Keep current with our free electronic newsletter
 - Join the Campaign for Healthier Eating in America
- Explore Campaign Action Kits to easily share information with others

We will give you TIPS to avoid GMOs a little later; **First** here is some valuable information:

Why isn't the FDA protecting us?

In 1992, the Food and Drug Administration claimed they had no information showing that GM foods were substantially different from conventionally grown foods. Therefore they were safe to eat, and absolutely no safety studies were required. But internal memos made public by a lawsuit reveal that their position was staged by political appointees who were under orders from the White House to promote GMOs. In addition, **the FDA official in charge of creating this policy was Michael Taylor, the former attorney for Monsanto, the largest biotech company, and later their vice president. (The ones who engineered GMO foods)**

In reality, **FDA scientists**, had repeatedly warned that GM foods can create unpredictable hard-to-detect side effects, including allergies, toxins, new diseases, and nutritional problems. They **urged long-term safety studies, but were ignored.**

Today, the same biotech companies who have been found guilty of hiding toxic effects of their chemical products are in charge of determining whether their GM foods are safe. **Industry-funded GMO safety studies are too superficial to find most of the potential dangers**, and their voluntary consultations with the FDA are widely criticized as a meaningless façade.

Genetic modification is radically different from natural breeding...

Genetic engineering transfers genes across natural species barriers. It uses imprecise laboratory techniques that bear no resemblance to natural breeding, and is based on outdated concepts of how genes and cells work. Gene insertion is done either by shooting genes from a “gene gun” into a plate of cells or by using bacteria to invade the cell with foreign DNA. The altered cell is then cloned into a plant.

WIDESPREAD AND UNPREDICTABLE CHANGES!

- The genetic engineering process creates massive collateral damage:
- Mutations are produced in hundreds or thousands of locations throughout the plant's DNA
- Natural genes can be deleted or permanently turned on or off.
- Hundreds of genes may change their behavior
- Even the inserted gene can be damaged or rearranged, and may create proteins that can trigger allergies or promote disease.

GM foods on the market

There are eight GM food crops. The five major varieties—soy, corn, canola, cotton, and sugar beets—have bacterial genes inserted, which allow the plants to survive an otherwise deadly dose of weed killer. Farmers use considerably more herbicides on these GM crops and so the food has higher herbicide residues. About 68% of GM crops are herbicide tolerant.

The second GM trait is a built-in pesticide, found in GM corn and cotton. A gene from the soil bacterium called Bt (*Bacillus thuringiensis*) is inserted into the plant's DNA, where it secretes the insect-killing Bt-toxin in every cell. About 19% of GM crops produce their own pesticide. Another 13% of GM crops produce their own pesticide and are herbicide tolerant.

There is also GM **Hawaiian Papaya** and a small amount of **Zucchini** and **Yellow Crookneck Squash**, which are engineered to resist a plant virus.

GROWING EVIDENCE OF HARM FROM GMOs

GM soy and allergic reactions

- **Soy allergies skyrocketed by 50 percent in the UK, soon after GM soy was introduced**
- **A skin prick allergy test shows that some people react to GM soy, but not to natural soy**
- **Cooked GM soy contains as much as 7-times the amount of a known soy allergen**
- **GM soy may contain a new unexpected allergen, not found in natural soy.**

Bt CORN AND COTTON LINKED TO ALLERGIES:

The biotech industry claims that Bt-toxin is harmless to humans and mammals because the natural bacteria version has been used as a spray by farmers for years.

- In reality, *hundreds of people exposed to Bt-toxin had powerful immune responses and damaged intestines*, Moreover, the Bt in GM crops is designed to be more toxic than the natural spray and is thousands of times more concentrated.
- Farm workers throughout India are getting the same allergic reactions from handling Bt cotton as those who reacted to Bt. Spray. Mice and rats fed Bt corn also showed immune responses.

GMOs fail allergy tests

No tests can guarantee that a GMO will not cause allergies. Although the World Health Organization recommends a screening protocol, the GM soy, corn, and papaya in our food supply fail those tests—because their GM proteins have properties of known allergens.

GMOs may make you allergic to non-GM foods

- GM soy drastically reduces digestive enzymes in mice. If it also impairs your digestion, you may become sensitive and allergic to a variety of foods
- Mice fed Bt-toxin started having immune reactions to formerly harmless foods
- Mice fed experimental GM peas also started reacting to a range of other foods. (The peas had already passed all the allergy tests normally done before a GMO gets on the market. Only this advanced test, which is never used on the GMOs we eat, revealed that the peas could actually be deadly.)

GMOs and liver problems

- Rats fed GM potatoes had smaller, partially atrophied (shrunk) livers
- The livers of rats fed GM canola were 12-16% heavier
- GM soy altered mouse liver cells in ways that suggest a toxic insult. The changes reversed after they switched to non-GMO soy

GMOs, reproductive problems, and infant mortality

- 1. More than half the babies of mother rats fed GM soy were considerably smaller, and died within three weeks, (compared to 10% of the non-GM soy controls)
- 2. Male rats and mice fed GM soy had changed testicles, including altered young sperm cells in the mice.
- 3. The DNA of mouse embryos functioned differently when their parents ate GM soy
- 4. The longer mice were fed GM corn, the less babies they had, and the smaller their babies were.

Bt crops linked to sterility, disease, and death

- Thousands of sheep, buffalo, and goats in India died after grazing on Bt cotton plants after harvest. Others suffered poor health and reproductive problems
- Farmers in Europe and Asia say that cows, water buffaloes, chickens, and horses died from eating Bt corn varieties.

- About two dozen US Farmers report that Bt corn varieties caused widespread sterility in pigs or cows.
- Filipinos in at least five villages fell sick when a nearby Bt corn variety was pollinating
- The stomach lining of rats fed GM potatoes showed excessive cell growth, a condition that usually leads to cancer. Rats also had damaged organs and immune systems

Functioning GM Genes remain inside you

- Unlike safety evaluations for drugs, there are no human clinical trials of GM foods. The only published human feeding experiment revealed that the **genetic material inserted into GM soy transfers into bacteria living inside our intestines and continues to function**. This means that long after we stop eating GM foods, we may still have their GM proteins produced continuously inside of us.
- If the antibiotic gene inserted into most GM crops were to transfer, it could create super diseases, resistant to antibiotics
- If the gene that creates Bt-toxin in GM corn were to transfer, it might turn our intestinal bacteria into living pesticide factories
- Animal studies show that DNA in food can travel into organs throughout the body, even into the fetus

GM food supplement caused deadly epidemic

In the 1980s, a contaminated brand of a food supplement called L-tryptophan killed about 100 Americans and caused sickness and disability in another 5,000-10,000 people. The source of contaminants was almost certainly the genetic engineering process used in its production.

The disease took years to find and was almost overlooked. It was only identified because the symptoms were unique, acute, and fast-acting.

If all three characteristics were not in place, the deadly GM supplement might never have been identified or removed.

If GM foods on the market are causing common diseases or if their effects appear only after long-term exposure, we may not be able to identify the source of the problem for decades, if at all. There is no monitoring of GMO-related illnesses and no long-term animal studies.

Heavily invested bio-tech corporations are gambling with the health of our nation for their profit.

Help end the genetic engineering of our food supply

When the tipping point of consumer concern about GMOs was achieved in Europe in 1999, within a single week virtually all major food manufacturers committed to remove GM ingredients. **The Campaign for Healthier Eating in America** is designed to reach a similar tipping point in the US soon.

NOW, THE PROMISED TIPS TO AVOID GMOs

Although most Americans say they would avoid brands if labeled GMO, unfortunately labels are not required. Here are 4 Tips to help you shop non-GMO.

TIP #1 BUY ORGANIC

- Certified organic products cannot intentionally include any GMO ingredients. Buy products labeled “100% organic,” or “made with organic ingredients.” You can be doubly sure if the product also has a Non-GMO Project Verified Seal.

TIP #2 LOOK FOR NON-GMO PROJECT SEALS

- Products that carry the Non-GMO Project Seal are independently verified to be in compliance with North America’s only third party standard for GMO avoidance, including testing of at-risk ingredients. The Non-GMO Project is a non-profit organization committed to providing consumers with clearly labeled and independently verified non-GMO choices. NonGMOProject.org

DAIRY:

- Products may be from cows injected with GM bovine growth hormone. Look for labels stating No rBGH, rBST, or artificial hormones, or check brand listings at NonGMOshoppingGuide.com. Phone Number (641) 209-1765

TIP #3 AVOID AT-RISK INGREDIENTS

- **If it is not labeled organic or verified non-GMO:** Avoid products made with ingredients that might be derived from GMOs (see list). The eight GM food crops are Corn, Soybeans, Canola, Cottonseed, Sugar Beets, Hawaiian Papaya (most) and a small amount of Zucchini and Yellow Squash.

SUGAR:

- If a non-organic product made in North America lists “sugar” as an ingredient, (and NOT pure cane sugar), then it is almost certainly a combination of sugar from both sugar cane and GM sugar beets.
- **TIP #4: DOWNLOAD THE GUIDE**
- Visit NonGMOShoppingGuide.com to download the growing list of Non-GMO products available and check out the iPhone application, ShopNoGMO free at the iTunes store.

Invisible GM Ingredients

- Processed foods often have hidden GM sources (unless they are organic or labeled non-GMO).

The following ingredients may be made from GM crops or GM micro-organisms:

Aspartame; also called NutraSweet, Canaderel, Equal, Spoonful, E951, BeneVia, AminoSweet. Baking powder, canola oil, caramel color, cellulose, citric acid (can get plant based, organic, non-GMO), cobalamin, colorose, condensed milk, confectioners sugar, corn flour, corn masa, corn meal,

corn oil, corn sugar, corn syrup, cornstarch, cottonseed oil, cyclodextrin, cysteine, dextrin, dextrose, diacetyl, diglyceride, erythritol, Equal, food starch, fructose (any form), glucose, glutamate, glutamic acid, gluten, glycerides, glycerin, glycerol, glycerol monooleate, glycine, hemicellulose,

high fructose corn syrup (HFCS), hydrogenated starch, hydrolyzed vegetable protein, inositol, inverse syrup, invert sugar, inversol, isoflavones, lactic acid, lecithin, leucine, lysine, malitol, malt, malt syrup, maltodextrin, maltose, mannitol, methylcellulose, milk powder, milo starch,

modified food starch, modified starch, mono and diglyceride, monosodium glutamate (MSG), Nutrasweet, oleic acid, phenylalanine, phytic acid, protein isolate, shoyu, sorbitol, soy flour, soy isolates, soy lecithin, soy milk, soy oil, soy protein, soy protein isolate, soy sauce,

stearic acid, sugar (unless cane), tamari, tempeh, teriyaki marinade, textured vegetable protein, threonine, tocopherols (Vit E), tofu, trehalose, triglyceride, vegetable fat, vegetable oil, Vitamin B12, Vitamin E, whey, whey powder, xanthan gum.

Note:

Vitamin C (ascorbic acid) although usually derived from corn, is probably not GM because it is not likely made in North America__

POPCORN is NOT GMO
(Thank Goodness)